

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: BERRY POND	Lake Area (ha): 14.16
Town: PITTSFIELD	Maximum depth (m): 6.3
County: Merrimack	Mean depth (m): 3.3
River Basin: Merrimack	Volume (m ³): 460500
Latitude: 43°16'47" N	Relative depth: 1.5
Longitude: 71°18'02" W	Shore configuration: 1.95
Elevation (ft): 886	Areal water load (m/yr): 4.15
Shore length (m): 2600	Flushing rate (yr ⁻¹): 1.30
Watershed area (ha): 116.5	P retention coeff.: 0.69
% watershed ponded: 0.0	Lake type: natural w/dam

BIOLOGICAL:

17 February 2000

23 June 1999

DOM. PHYTOPLANKTON (% TOTAL)	#1	TABELLARIA 50%	UROGLENOPSIS 45%
	#2	PERIDINIUM 48%	ANABAENA 12%
	#3		TABELLARIA 8%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			4.10
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 59%	VORTICELLA 24%
	#2	NAUPLIUS LARVA 38%	NAUPLIUS LARVA 21%
	#3		KERATELLA 19%
ROTIFERS/LITER		23	62
MICROCRUSTACEA/LITER		15	46
ZOOPLANKTON ABUNDANCE (#/L)		39	145
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			5.2
BOTTOM DISSOLVED OXYGEN (mg/L)		11.2	7.9
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		1
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

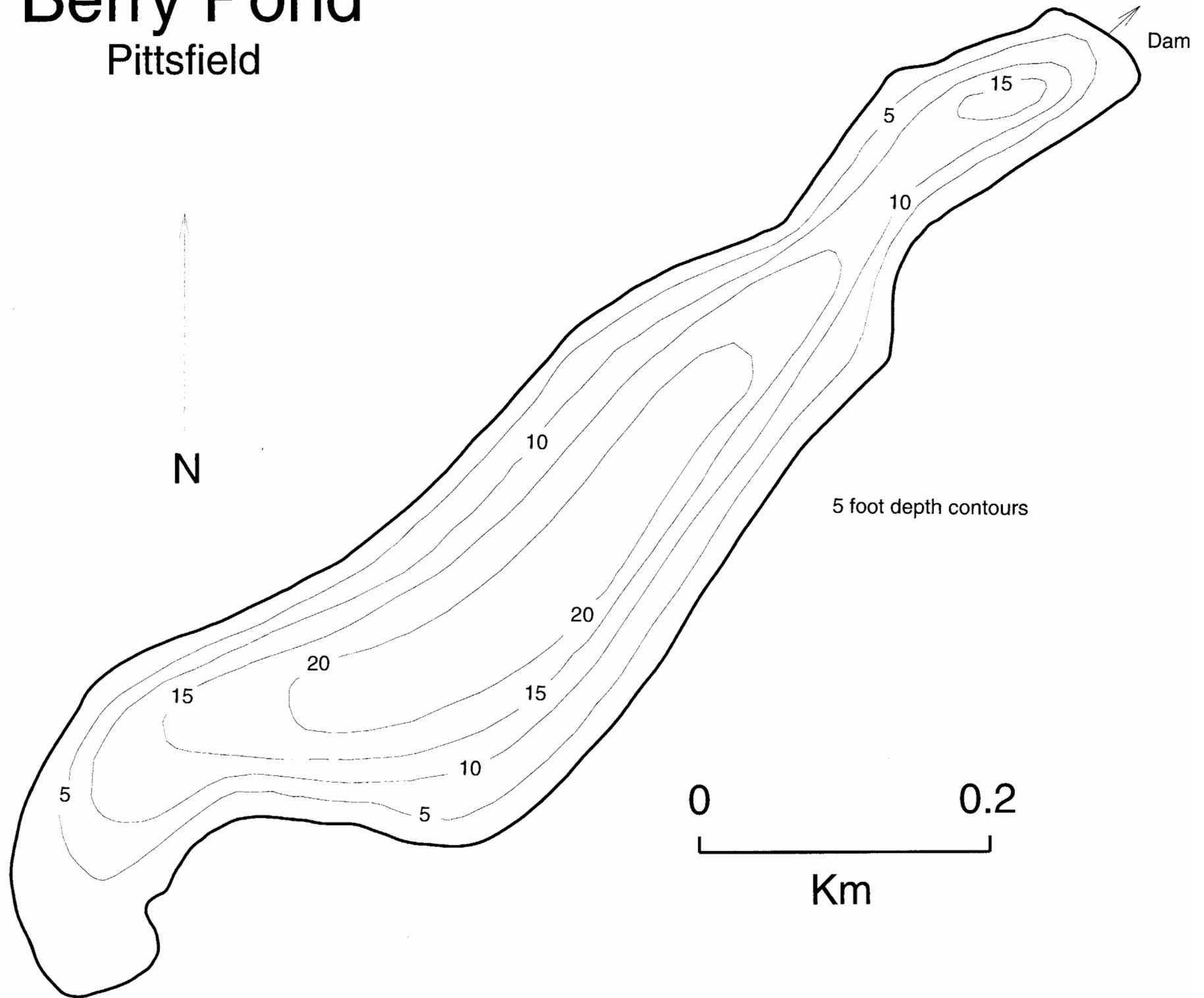
Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

<u>CHEMICAL:</u>			Lake: BERRY POND Town: PITTSFIELD			
	17 February 2000		23 June 1999			
DEPTH (m)	2.0	4.0	2.0		5.0	
pH (units)	5.9	5.9	6.4		6.3	
A.N.C. (Alkalinity)	3.0	2.9	2.5		2.4	
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05	
TOTAL KJELDAHL NITROGEN	< 0.10	0.16	0.20		0.40	
TOTAL PHOSPHORUS	0.009	0.009	0.005		0.009	
CONDUCTIVITY (μ mhos/cm)	28.8	28.8	26.8		26.3	
APPARENT COLOR (cpu)	5	< 5	12		12	
MAGNESIUM			0.57			
CALCIUM			1.7			
SODIUM			2.2			
POTASSIUM			0.44			
CHLORIDE	2	2	2			
SULFATE	5	5				
TN : TP		18	40		44	
CALCITE SATURATION INDEX			4.3			
All results in mg/L unless indicated otherwise						
<u>TROPHIC CLASSIFICATION: 1999</u>						
	D.O.	S.D.	PLANT	CHL	TOTAL	
	CLASS					
	**	1	1	1	3	
		Oligo.				
<u>COMMENTS:</u> <ol style="list-style-type: none"> 1. This is the public water supply for the Town of Pittsfield. Access is a gated and locked access with no boat launch site. Swimming is prohibited. 2. This is a relatively clear water oligotrophic pond with low nutrient and ion levels. It has been treated in the past with copper sulfate to control taste and odor algae – but not since 1992. 3. There is relatively new rip-rap on the face of the earthen dam and a new concrete spillway. 						

Berry Pond

Pittsfield

III-54



[illegible]

Berry Pond

Pittsfield

III-56

N

Dam

0

0.2

Km

[illegible]